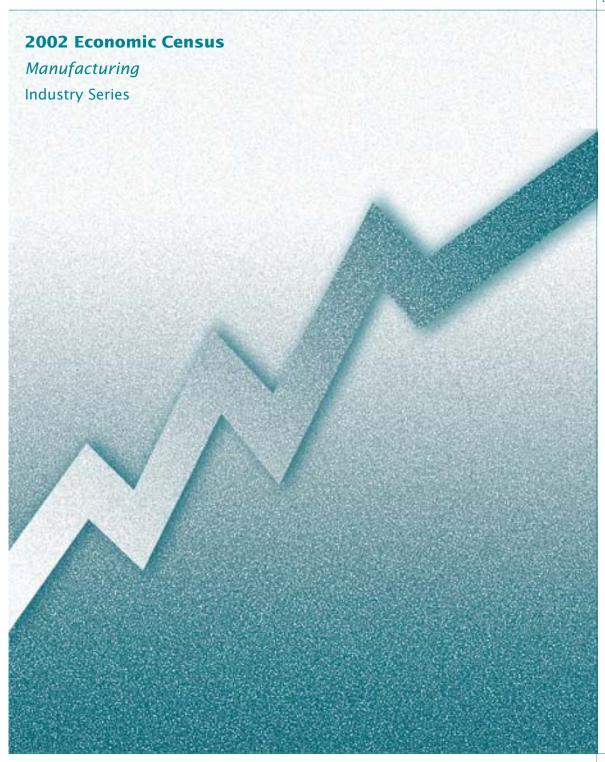
Electronic Computer Manufacturing: 2002

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Helping You Make Informed Decisions

U.S. Department of Commerce Economics and Statistics Administration U.S. CENSUS BUREAU



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

		All	All em	ployees	Pro	duction work	kers		Total	Total	Total capital
Industry and year ¹	Com- panies ²	estab- lish- ments ³	Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	cost of materials (\$1,000)	value of shipments (\$1,000)	expendi- tures (\$1,000)
334111, Electronic computer											
manufacturing2002	463	485	61 856	3 261 588	18 216	36 414	737 927	20 902 009	26 536 847	47 643 943	r1 320 172
2001	N	N	77 258	3 548 459	21 347	34 229	903 321	17 516 239	38 030 029	55 869 115	470 420
2000	N	N	87 715	4 572 408	27 869	44 128	1 051 790	24 723 734	44 260 704	69 298 988	823 616
1999	N	N	83 677	4 715 056	28 841	57 769	1 021 622	29 402 669	41 845 680	71 679 731	717 885
1998	N	N	95 806	4 277 845	31 782	57 462	912 889	31 206 150	35 105 601	66 864 612	696 178
1997	531	557	99 427	4 239 347	35 905	66 135	946 812	25 908 268	40 223 412	66 301 810	1 065 684

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

		All establishments ²		All employees		Production workers						
Industry and geographic area	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
334111, Electronic computer manufacturing												
United States. California Florida Michigan. Washington	3	485 149 26 16 13	148 47 7 8 4	61 856 21 252 1 056 1 466 1 017	3 261 588 1 067 816 65 468 76 905 54 134	18 216 4 131 171 672 204	36 414 7 725 342 1 174 407	737 927 148 038 6 766 27 115 9 509	20 902 009 6 940 422 117 564 169 436 70 501	26 536 847 8 997 849 129 376 53 076 116 534	47 643 943 16 038 360 245 458 224 501 190 179	r1 320 172 r594 279 r8 979 r4 008 r5 948

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more. ¹Includes establishments with payroll at any time during the year. ³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
334111, Electronic computer manufacturing	
Companies ¹ number	463
All establishments ²	485 337 93 55
All employees³ number Total compensation \$1,000 Annual payroll \$1,000 Total fringe benefits \$1,000	61 856 3 857 099 3 261 588 595 511
Production workers, average for year	18 216 19 402 18 402 17 907 17 138
Production worker hours	36 414 737 927
Total cost of materials \$1,000. Materials, parts, containers, packaging, etc., used \$1,000. Resales \$1,000. Purchased fuels \$1,000. Purchased electricity \$1,000. Contract work \$1,000.	26 536 847 24 634 744 1 601 220 17 161 40 987 242 735
Quantity of electricity purchased for heat and power	660 305 68
Total value of shipments \$1,000 Primary products value of shipments \$1,000 Secondary products value of shipments \$1,000 Total miscellaneous receipts \$1,000 Value of resales \$1,000 Contract receipts \$1,000 Other miscellaneous receipts \$1,000	47 643 943 38 985 060 6 175 181 2 483 702 2 053 776 67 202 362 724
Primary products specialization ratio percent. Value of primary products shipments made in all industries \$1,000 Value of primary products shipments made in this industry \$1,000 Value of primary products shipments made in other industry \$1,000	86 40 939 626 38 985 060 1 954 566
Coverage ratiopercent.	95
Value added \$1,000	20 902 009
Total inventories, beginning of year \$1,000. Finished goods inventories \$1,000 Work-in-process inventories \$1,000 Materials and supplies inventories \$1,000.	1 811 508 354 434 437 822 1 019 252
Total inventories, end of year \$1,000 Finished goods inventories \$1,000 Work-in-process inventories \$1,000 Materials and supplies inventories \$1,000	1 935 278 218 935 368 234 1 348 109
Gross value of depreciable assets (acquisition costs) at beginning of year \$1,000. Total capital expenditures (new and used) \$1,000. Buildings and other structures (new and used) \$1,000. Machinery and equipment (new and used) \$1,000. Automobiles, trucks, etc., for highway use \$1,000. Computers and peripheral data processing equipment \$1,000. All other expenditures for machinery and equipment \$1,000. Total retirements \$1,000. Gross value of depreciable assets at end of year \$1,000.	'5 407 408 '1 320 172 '455 433 '864 739 '44 253 '107 356 '713 130 '1 112 227 '5 615 353
Depreciation charges during year\$1,000.	^r 517 872
Total rental payments \$1,000. Buildings and other structures \$1,000. Machinery and equipment \$1,000.	166 589 84 302 82 287
Total other expenses ⁴ \$1,000 Response coverage ratio ⁵ percent. Repair and maintenance services of buildings and/or machinery ⁴ \$1,000 Communications services ⁴ \$1,000 Legal services ⁴ \$1,000 Accounting, auditing, and bookkeeping services ⁴ \$1,000 Advertising and promotional services ⁴ \$1,000 Expensed computer hardware and supplies and purchased computer services ⁴ \$1,000 Refuse removal (including hazardous waste) services ⁴ \$1,000 Management consulting and administrative services ⁴ \$1,000 Taxes and license fees ⁴ \$1,000 All other expenses ⁴ \$1,000	259 448 61 13 117 17 942 12 737 6 045 14 403 53 389 2 462 9 250 5 211 124 892

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.
2Includes establishments with payroll at any time during the year.
3Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.
4Based on Annual Survey of Manufactures (ASM) sample data.
5A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

			All emp	oloyees	Pr	oduction worke	ers		Total	Total	Total
Employment size class		All estab- lish- ments ²	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	cost of materials (\$1,000)	value of shipments (\$1,000)	capital expendi- tures (\$1,000)
334111, Electronic computer manufacturing											
All establishments Establishments with — 1 to 4 employees 5 to 9 employees 10 to 19 employees 20 to 49 employees 5 to 99 employees 5 to 99 employees 50 to 99 employees 500 to 999 employees 500 to 999 employees 1,000 to 2,499 employees 2,500 employees or more	9 7 5 3 4 1 - -	485 207 72 58 51 42 20 16 10 4	61 856 383 499 805 1 605 2 951 2 827 5 249 6 724 6 505 34 308	3 261 588 16 412 25 250 40 441 95 019 162 900 162 075 227 421 333 198 353 529 1 845 343	18 216 204 92 152 405 824 946 2 336 3 179 1 246 8 832	36 414 351 117 260 777 1 561 1 652 4 549 5 718 2 365 19 064	737 927 3 719 3 407 6 531 16 119 31 930 36 096 71 024 83 924 54 731 430 446	20 902 009 28 362 53 437 96 844 187 335 307 267 322 895 1 446 900 1 973 052 2 209 718 14 276 199	26 536 847 38 168 60 931 130 378 198 772 315 853 359 793 2 063 760 2 583 811 3 426 594 17 358 787	47 643 943 66 542 115 757 225 921 390 916 626 664 690 676 3 534 030 4 657 790 5 626 637 31 709 010	'1 320 172 '2 342 '6 944 '9 140 '11 022 '19 969 '16 834 '130 055 '22 649 '649 385 451 832
Administrative records ⁴	9	268	1 401	66 864	341	585	10 045	114 058	154 816	268 325	¹ 10 644

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

¹Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or		All	All em	ployees	Pr	oduction work	ers		Total	Total	Total capital
product class code	Industry or primary product class	estab- lish- ments ¹	Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	cost of materials (\$1,000)	value of shipments (\$1,000)	expendi- tures (\$1,000)
334111	Electronic computer manufacturing	485	61 856	3 261 588	18 216	36 414	737 927	20 902 009	26 536 847	47 643 943	'1 320 172
3341111 3341117	Host computers, multiusers (mainframes, super computers, medium scale systems, UNIX servers, PC servers)	35	19 463	1 015 173	4 106	7 202	154 413	5 475 133	5 517 569	11 036 806	⁷ 757 312
334111D	supporting attached peripherals (personal computers, workstations, portable computers) Other computers (array, analog, hybrid, and special-use computers)	54 21	19 773 14 890	971 643 858 302	11 266 971	23 995 2 036	478 595 38 901	14 556 290 416 758	20 119 590 337 672	34 772 642 806 178	D

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

		Number of		Product	shipments
Product		companies with		Floudets	Silipinents
code	Product	shipments of \$100,000 or more	Quantity of production for all purposes	Quantity	Value (\$1,000)
334111	Electronic computer manufacturing	N N	X	X	40 939 626 54 871 866
3341111	Host computers, multiusers (mainframes, super computers, medium scale systems, UNIX servers, PC servers)	N N	X	X	12 967 418 16 584 553
33411111	Host computers, multiusers (mainframes, super computers, medium scale systems, UNIX servers, PC servers)	N N	X	X	12 967 418 16 584 553
3341111100	Host computers, multiusers (mainframes, super computers, medium scale systems, UNIX servers, PC servers)	56 70	X	X	12 967 418 16 584 553
3341117	Single user computers, microprocessor-based, capable of supporting attached peripherals (personal computers, workstations, portable computers)	N N	×	×	26 357 141 34 599 552
33411171	Single user computers, microprocessor-based, capable of supporting attached peripherals (personal computers, workstations, portable computers)	N N	X	X	26 357 141 34 599 552
3341117100	Single user computers, microprocessor-based, capable of supporting attached peripherals (personal computers, workstations, portable computers)	69 93	×	×	26 357 141 34 599 552
334111D	Other computers (array, analog, hybrid, and special-use computers)	N N	X	X	792 745 1 012 286
334111D1	Other computers (array, analog, hybrid, and special-use computers)	N N	×	×	792 745 1 012 286
334111D100	Other computers (array, analog, hybrid, and special-use computers)	28 42	×	X	792 745 1 012 286
334111W	Electronic computer manufacturing, nsk, total	N	×	×	822 322
334111WY	Electronic computer manufacturing, nsk, total	N N N	X X X	X X X	2 675 475 822 322 2 675 475
334111WYWW	Electronic computer manufacturing, nsk, for nonadminstrative-record establishments	N N	X	X	589 631 2 533 316
334111WYWY	Electronic computer manufacturing, nsk, for adminstrative- record establishments	N N	×	×	232 691 142 159

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. Product Class Shipments for Selected States: 2002 and 1997

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3341111 3341117	Host computers, multiusers (mainframes, super computers, medium scale systems, UNIX servers, PC servers) United States	12 967 418 16 584 553 7 497 650 6 179 885 26 357 141 34 599 552 3 674 5911 82 404 N 80 671 N
334111D	Other computers (array, analog, hybrid, and special-use computers) 2002. United States. 1997. California 2002. 1997 1997	792 745 1 012 286 42 785 N

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
334111 Electronic compute	er manufacturing		
00900001 Total materials		X	24 634 744
33441103 Cathode ray tubes (C	RT) and all other transmittal, industrial, and special purpose electron tubes	X	35 182 603
		X	1 801 D
33441200 Printed circuit boards	(without inserted components) for electronic circuitry	X	D 205 820
001900C3 Printed memory board	ds for electronic circuitry	×	2 406 450
001900C6 Printed peripheral cor	ntrollers (graphic boards, drive controllers, etc.) for electronic circuitry	X X X X	1 264 260 156 412
001900C7 Printed computer prod	cessors (system boards, array processors, etc.) for electronic circuitry	X X X	443 961 3 759 190 2 915 193
001900C5 Printed communication	on boards (LAN boards, D/A and A/D converters, etc.) for electronic		
		X	262 585 307 132
001900D1 Other printed circuit b circuitry	ooards (loaded boards, subassemiblies, and modules) for electronic	x	417 891
	uding transistors, diodes, rectifiers, and integrated circuits), for electronic	X	280 173
circuitry		X	163 855 548 761
33441400 Capacitors for electro	nic circuitry	X	7 797
33441500 Resistors for electron	ic circuitry	X	62 276 8 075
33441700 Connectors for electron	onic circuitry	X X X X X	31 083 10 984
	1997	X	80 715
33400017 Battery packs for elec	ctronic circuitry	X	18 119 34 362
001900D2 Other power supply u	nits for electronic circuitry	X X X	217 137 376 893
001900B8 Other components an	nd accessories, for electronic circuitry (coils, transformers, transducers, ding tubes	x	D
Switches, 616), 67612	1997	x	D
001900B1 Electrical transmission	n, distribution, and control equipment	X	4 142
33232201 Steel, aluminum, and	other metal electronic enclosures	X	37 110 112 589
32619901 Plastics electronic en	1997 closures	X X X X	394 602 27 588 123 877
	1997		123 877
	, including stampings (excluding enclosures)	X X X X	17 511 21 180
	etal products (excluding forgings)	X	1 597 D
33210000 Forgings		X	D N
33100035 Castings, rough and s	semifinished	X	480
33100033 Metal shapes and for	ms (excluding castings, forgings, and fabricated metal products)	X	2 165 D
331000A9 Insulated copper wire	and cable (including magnet wire)	X X X X	927 12 076
	1997		50 014
	roducts (excluding enclosures)	X	D 2 877
		X	280 191 225 883
33593103 Appliance outlets, swi	itches, lampholders, and other current-carrying wiring devices	X X	7 604
33531201 Electric motors and g	enerators	X	D
32200001 Paper and paperboar	d products (including paperboard boxes, containers, and corrugated	X X	4 053
' ' ' '		×	45 867 73 806 1 332 643
7 urchased computers	1997	x	4 047 314
33411200 Purchased peripheral		V	3 393 896
	storage devices	Ŷ	2 866 679
33411300 Purchased computer	1997 terminals	X X X	2 866 679 507 455
'	1997	X X X X	2 866 679 507 455 D 864 261 590 925
33411903 Purchased peripheral	1997 terminals	×	507 455 D 864 261 590 925
33411903 Purchased peripheral 33411905 Purchased peripheral	1997. 1997	×	507 455 D 864 261 590 925 17 283 37 072 D
33411903 Purchased peripheral 33411905 Purchased peripheral 33410007 Other purchased elec	1997 terminals	x x x x x x x x x x x x x x x x x x x	507 455 D 864 261 590 925 17 283 37 072

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.